

# THE WORSHIPFUL COMPANY OF WATER CONSERVATORS

## STATEMENT ON ITS POSITION IN RESPONSE TO DEFRA'S CONSULTATION ON THE GOVERNMENT'S STORM OVERFLOWS DISCHARGE REDUCTION PLAN (31 March 2022)

### SUMMARY

- S1. This is a Statement by The Worshipful Company of Water Conservators. It is a City of London Livery Company focussed on the long-term health of our water resources and the broader environment. Our members include senior professionals from water, environmental and related industries and regulators, along with others who share our passion for water and the environment. Our experience and knowledge ranges from the complexities of environmental sciences, through the application of engineering to deliver the goals identified by those sciences, and the subsequent management of the assets created. We are mindful of the impact of any decision relating to the water environment, be it environmental, social or economic.
- S2. The Company supports changes in storm water management to protect and enhance the environment and better meet public expectations while also responding to other factors including pressures arising from climate change and the need for more homes. It is also mindful that this is an additional cost to sewerage service customers at a time of economic hardship.
- S3. The Company is advocating the following.
- There is a need for a 'road map' explaining the relationships of all the water management initiatives. At the moment they appear more like disconnected jigsaw pieces with no overall picture. The Reduction Plan must be integrated with other initiatives and policies.
  - An overarching River Use and Quality Strategy is required to provide a holistic framework into which the Reduction Plan will fit. This should evolve from existing Basin and Catchment Plans.
  - A more refined approach to setting operational and investment targets
  - There needs to be better cost benefit appraisal
  - The designation of bathing waters should be part of this strategy but also needs to be part of a separate wider consultation. There is a danger that expectations are raised which cannot be delivered in practice. Storm overflows are a major, but not the sole factor in healthy bathing waters which can be impacted by treated sewage effluents and sundry natural sources.
  - The government itself must take responsibility and develop policies and actions beyond setting targets for water companies, for example, steps to change behaviour in society, making sure that legislation and guidance on matters such as planning and development, and charging for water services, are fit for purpose.
  - The achievement of environmental aspirations requires a broader coalition of delivery involving all of us, be that individual or corporate. The Company would like to see the government take national leadership in this concept.
  - The Company suggests that the time has come to create a nexus between Citizen Science and Citizen Delivery and it will be considering how this could be best achieved. This is explored in more detail in the body of the Statement.

S4. The Company recognises it may be too late to change the nature of the Reduction Plan itself, but notes that it appears overly simplistic, and the Company recommends that there must be more sophistication and refinement of targets.

## THE ESSENCE OF THE PLAN

S5. To help readers of this Statement outside of Defra the essence of the Reduction Plan is reproduced below:

### **S5.1 *Protecting the environment:***

**Headline target:** *Water companies shall only be permitted to discharge from a storm overflow where they can demonstrate that there is no local adverse ecological impact. This must be achieved for all storm overflow sites by 2050.*

#### **Sub-targets:**

- *The headline target must be achieved for most (75%+) storm overflows discharging in or close to high priority sites by 2035.*
- *It must be achieved for all (100%) overflows discharging in or close to high priority sites by 2045.*
- *Water companies must plan to achieve this target for all remaining storm overflow sites by 2050. High priority sites include Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SAC), eutrophic sensitive areas, chalk streams and waters currently failing our ecological standards due to storm overflows.*

*No local adverse ecological impact means achieving the Urban Pollution Management Fundamental Intermittent standards for Ammonia and Dissolved Oxygen directly downstream of the discharge point.*

*This headline target will mean that no water body in England will fail to achieve good ecological status due to storm overflow discharges. It also goes further to ensure there is no local impact, rather than just considering the impact at the water body sampling point which can be far away from the storm overflow. This target will protect biodiversity at both a local and national scale. It will result in the complete elimination of ecological harm from storm overflows.*

**S5.2 *In addition to protecting the environment, water companies must significantly reduce or eliminate pathogens harmful to human health being discharged by storm overflows.***

**Headline Target:** *For storm overflows discharging into and near designated bathing waters, water companies must significantly reduce harmful pathogens by either applying disinfection, such as with ultraviolet radiation, or reduce the frequency of discharges to meet Environment Agency spill standards by 2035.*

*For coastal waters, the Environment Agency spill standard is 3 discharges per season for 'good' and 2 for 'excellent' bathing waters. The Environment Agency will publish the new standards for rivers later this year and we expect that the spill standard will be less than 2 per bathing season. Currently, this standard is only applied to those storm overflows close enough to affect a single monitoring point for each bathing water. This new target on water companies will require all storm overflows near to existing, or any newly designated, bathing area, to comply with this rigorous standard. This will lead to*

major improvements to an estimated 660 storm overflows discharging to waters used for recreation and leisure. This is expected to reduce discharges from these overflows close to designated bathing waters by over 70% during the bathing season, although we expect significant reductions to occur outside of the bathing season as well.

### **S5.3. Ensuring storm overflows operate only in unusually heavy rainfall events**

**Headline Target:** Storm overflows must not discharge above an average of 10 rainfall events per year by 2050.

**Sub-target:** Water companies must also ensure all storm overflows, regardless of where they discharge to, have screening controls to limit discharge of persistent inorganic material (as well as faecal and organic solids), and they must be well maintained. This means the screen must be designed and maintained so that it always effectively achieves the solid separation and flow rates that it was designed for. This target must also be met by 2050.

Storm overflows were originally designed and intended to operate in unusually heavy rainfall events. However, it is clear that storm overflows are currently being used significantly beyond this original purpose. This target ensures that storm overflows would only be used rarely, in the case of unusually heavy rainfall, if at all.

These targets are key in protecting public health and wellbeing in areas which are not designated bathing waters. A maximum of 12 hours rainfall will be classed as 1 rainfall event. Longer rainfall events will count as multiple events. This target applies to all storm overflows discharging to any inland waters as well as those discharging near to any designated bathing waters

## **INTRODUCTION**

1. The Company supports all appropriate initiatives to protect and enhance the quality of our rivers and has already expressed its positions in relation to the presence of used care products in sewage, and the future of inland bathing waters. The Company is also stating its position in its response, made in parallel to this consultation, on the Defra Consultation on Environmental Targets.
2. The Company's overarching position is that the time has come to accept that any initiative now must be taken forward by efforts by all of society led by government rather than just pointing a finger at agriculture, water companies and regulators. The Company's position is that water companies have significant responsibilities which must be met by investment and focussed action. It is accepted that those companies must do much better at managing sewer overflows, but to expect them to take the lead on behavioural change of society should no longer be a significant element of national policy. This is a matter for us all led by government. There is some recognition of this in the Consultation Document, but perhaps not enough.
3. The Company also advocates that the administration and regulation of river water quality has become too complicated, and that there is a need for two overarching steps:
  - First, to take a step back and explain how all the policy initiatives fit together as a road map. The current approach is more like a putting a jigsaw together without a picture or having all the pieces. For example, this Consultation does not refer to Environmental Targets, but the Consultation Document on Environmental Targets refers to the consultation on storm overflows.

- Second, to develop a national river quality and use strategy from which these initiatives are derived.
4. The Company has developed its Position on storm sewage in this context and is submitted to Defra as a companion to the submission on Environmental Targets.
  5. The Company acknowledges the very substantial work in the Storm Sewage Task Force and the Evidence Report, produced by Stantec under contract to Water UK, to which the Environment Agency, Ofwat, Defra, and others contributed. The Company is pleased that such expertise was mobilised to move the resolution of the problems forward, but still considers that there are issues surrounding the development of the Reduction Plan. There were some shortfalls in the Stantec report, for example in cost benefit analysis, which needed to be addressed before the conclusions were extrapolated to the current proposals.

## **RESPONSES TO THE ISSUES IN THE CONSULTATION**

### **What are the Storm Overflow Discharges which are causing problems?**

6. It is very unlikely that, from the readily available information, all of the 400,000 storm sewage discharges in 2020 referred to, were made as a result of storms. Overflow facilities also provide relief in emergencies or from sewers overloaded with sewage and these problems require different attention. The environmental impacts will be different and more polluting than the weaker strengths of storm sewage. For many of the public complaints about sewage overflows it is clear from media reports that t sewage borne litter causes the greatest disgust. It may well be that these are at the heart of the comments made in the Consultation Document about the ‘use’ of overflows (i.e. overflows are being used for more than storm overflows *per se*).
7. There is a need for emergency resilience to protect properties and the environment at the same time. Water companies must exercise a strict duty of care to ensure that the possibility of equipment failure will be very rare indeed, and there will be emergency backup. Such circumstances are defined in discharge consents and the Company submits that a review of the principles of such emergency consents should be part of the Plan.
8. Not all sewer failures are the direct fault of water companies. Failures are often due to blockages caused by fat, grease and used care products, the so called ‘fatbergs’. As the Company has opined before, the time has come for the nation to move beyond the water companies having an additional challenge of changing domestic habits in waste disposal. The Company is disappointed that the commitment by Defra in this consultation is not nearly enough to contribute to the solution of the disposal of used care products and is focussed only on wet wipes.

### **Is the concept of limiting the number of discharges the right one?**

9. The Company supports the principle of limiting discharges, but suggests that the acceptable number of times and volume of permissible discharges must be correlated to the nature of the discharge and the circumstances of the uses of the receiving water.
10. The Final Report of the Technical Committee on Storm Overflows and the Disposal of Storm Sewage published by HMSO in 1970 consolidated practice evolved since the recommendations of the Royal Commission on Sewage Disposal at the turn of the 19<sup>th</sup>

/20<sup>th</sup> century. These have been developed since then. Are they not fit for purpose now? It might not be due to the failure of the design criteria recommended, but more due to the fact that the storm events have changed since 1970 arising from climate change and there is greater demand for housing development putting pressures on sewer capacities as is recognised in the Consultation Document.

11. The 1970 report produced design criteria which recognised the contributions to sewage from domestic and trade sources as well as infiltration and storm water. A consensus was reached on the definition of dry weather flow (DWF) in which the Institute of Sewage Purification, a predecessor of the current Chartered Institution of Water and Environmental Management made a leading contribution. This was developed by the Environment Agency in 2018.
12. There are many factors which contribute to understanding sewer flows apart from monitoring. For example it is common practice in water companies to assume that domestic sewage flows are typically 90 % of water supplied.
13. The essence of this approach has been to understand the multiples of DWF which must be kept in the sewer system, including that retained in the treatment system, for which storage periods are stipulated. There is a need to understand the storm frequency and duration and size, and the consultation refers to the fact that Storm Sewage Task Force found that 80 % of storm sewage discharges have Event Duration Monitoring. So this data should be able to confirm the validity of the 1970 criteria. Design practices have evolved but the fundamental principles remain. The inherited approach is dismissed in the Consultation Document: *Storm overflows were originally designed and intended to operate in unusually heavy rainfall events. However, it is clear that storm overflows are currently being used significantly beyond this original purpose. This target ensures that storm overflows would only be used rarely, in the case of unusually heavy rainfall, if at all*
14. The Consultation observes ‘ *A growing population, an increase in hard surfaces and more frequent and heavier storms because of climate change have increased pressure on the system, bringing the frequency of discharges to an unacceptable level* ’ . So maybe the algorithm was not wrong, only insofar that the numerical content needs revision.
15. Members of the Company were involved over many years in determining the quality of storm sewage discharges. For example, they found that the quality of the ‘first flush’ at say 6 DWF, after a dry period was of much, much worse quality than, say, the quality after sustained flows at 9 DWF. The paradox is also that the example of poor quality after dry weather is most likely to occur in warm weather when the demand for riverine recreation is greatest. The targets which are eventually set must take account of this experience. With cross reference to the consultation on Environmental Targets requiring a reduction in water consumption, less consumption means stronger sewage.
16. The Company therefore asks the question: is this approach still valid in the context of climate change, ever increasing demand for new properties, and evolving public expectations? Would a 2022 update on the algorithm be a better approach than the proposals? The application of the algorithm would still produce a list of locations, which could be priorities. One way in which the algorithm could be improved is by adding the expected uses of the receiving water to what is acceptable in terms of the discharged water. In that context, what would be required for discharge to a designated inland

bathing would be more demanding than that for non-designated waters. This distinction is already in place for coastal bathing waters and the challenges of getting those right shows the challenges which will be faced for inland waters.

17. The Company recognises that after all the effort that has been made it may be too late to change the nature of the Plan itself, but it does seem overly simplistic and the Company recommends that there must be more sophistication and refinement of targets using established algorithms.

### **End of Pipe or Environmental Quality Objectives?**

18. The Company observes that the nature of the proposed storm sewage targets is a regression on approach. For many years the UK argued for the environment to be managed through environmental quality objectives from which management strategies, including the control of discharges, could be derived, rather than 'end of pipe' solutions for discharges. What is proposed feels like an 'end of pipe' solution. The Company submits that the concept of river environment quality and use objectives which worked successfully in the period of the 1970s-1990s needs to be revived.

### **Creating a new sewerage infrastructure**

19. The Consultation Document focusses on reducing the number of storm overflows. It recognises that the ultimate solution of separating storm water flows from dry weather sewage is going to be technically challenging and expensive. It recognises the need for alternative solutions including those based on recycling and using nature. The infrastructure solutions include finding ways of containing and treating the overflows such as by storage and then subsequent release back into the system, or by separation of the storm water into separate systems. There must be a distinction between those storm sewage overflows from sewerage systems, those from pumping stations and those from sewage treatment works. It may well be that the excellent notion of nature based treatment will be limited by space restrictions particularly for sewer/pumping station overflows. An example of a nature based solution would be reed bed treatment.
20. The spectrum of technologies and materials needed to satisfy whatever local option is adopted in managing infiltration, needs to be constantly evaluated and developed. The Company is of the opinion that sufficient funds must be available to support any research and development as this as part of the Plan.
21. Assuming that there will be a significant element in the programme of re-engineering our sewers, in which storm water and dry weather sewage flows are separated, consideration needs to be given to the role of surface water management in the responsibilities of water companies. In effect this could become a third arm of the services provided by water companies which could well have implications for the charging regime.
22. Ofwat states that charges for surface (rain) water drainage are paid for as flows
  - a fee in the standing charge
  - a volumetric charge based on the amount of water you use
  - a charge based on the rateable value of your property
  - through a charge related to the type of property you live in

23. So new properties for which Sustainable Urban Drainage Systems (SUDS) are provided will receive a rebate on charges. But what will happen when surface waters from existing properties are not dealt with as part of the foul water services? What about surface waters from new build which are dealt with by discharge to the new surface water sewerage systems? Water companies have statutory responsibility for surface water services. Their sewerage charges are linked to the costs of running sewers and treatment plants. Will the increased costs of the new surface water services be applied to all properties as part of a new element in the charging regime? And how will that coalesce with those costs incurred in the management of the remaining combined sewage and will it mean the demise of rebate? The implication for charging mechanisms needs attention by Ofwat; the Company assumes that it will not need a change in Licence conditions. It may need a direction by Defra. Furthermore, it will have implications for the strategies for managing surface waters
24. The Consultation Document states that government is committed to flood resilience, and restated its plans for tackling surface water in the July 2021 surface water management update. This update includes progress to date in delivering the Surface Water Management Action Plan 2018, and its response to the independent review into surface water and drainage responsibilities. The David Jenkins' review in 2020 of surface water responsibilities, conducted for Defra, noted the benefit of managing rainwater, for example via sustainable drainage systems, so it does not enter the sewer network. The review outlined recommendations on how this could be achieved which the government has accepted.
25. The Review covers a number of actions to both improve our understanding of the risks and strengthen delivery. These include:
- improving risk assessment and communication
  - making sure infrastructure is resilient
  - clarifying responsibilities for surface water management
  - joined up planning for surface water management
  - building local authority capacity
26. These have implications for the way in which surface water drains from new build properties to SUDS or new surface water drainage systems. But the Jenkins Review did not anticipate the impact of the changes to surface water management arising from the Storm Overflow Reduction Plans. These are further pieces of the jigsaw, which need to be explained, or fitted better together, as part of the overall aspirations for river quality management. They certainly need to be connected to Flood Risk Management Plans under the 2010 Flood and Water Management Act of 2010.
27. The Consultation Document does not give any indication as to how the Reduction Plan will link into the priorities and expectations for the Drainage and Wastewater Management Plans (DWMPs) containing actions needed in 5, 10 and minimum 25-year periods considering risks and issues such as climate change. Plans should also align, as far as possible, with other strategic and policy planning tools. These are aimed to build on existing sewerage planning approaches undertaken by the industry and should reinforce the principles of the 2013 Drainage Strategy Framework (a joint Environment Agency and Ofwat document). These plans are currently in their first 5-year cycle and

are being produced on a non-statutory basis for early 2023 in England and Wales. The latest Defra Guidance states in February 2022 that they must demonstrate links with other companies, plans and programmes which could complement the DWMP such as the national flood and coastal erosion risk management strategy, river basin management plans (RBMPs), flood risk management plans (FRMPs), the Water Industry National Environment Programme (WINEP) ( updated after consultation in December 2021 ), the NEP in Wales and local plans produced by local authorities (for example, local flood risk management strategies, local development plans). This is in the interest of refining the DWMP framework and developing common ways of working and efficiencies and sharing best practice. This Guidance complements the Framework published by WaterUK. The Company submits that these further pieces of the jigsaw of DWMPs and WINEPs need to be linked in and reviewed

### **Government Action in Delivery**

28. The Consultation Document takes a rather narrow view of what it can do to help deliver the Reduction Plans. Reference has already been made to a lack of commitment to a full programme of preventing used care products in sewage. The Document focuses on delivery of commitments on water companies.
29. The Environment Act 2021 places a duty on water companies to secure a progressive reduction in the adverse impact of discharges from storm overflows. This is reinforced by the Strategic Policy Statement for Ofwat which outlines that the government expects water companies to significantly reduce the frequency and volume of sewage discharges from storm overflows.
30. The Consultation Document states that the water companies should prevent additional rainwater from entering the combined sewer network and remove existing rainwater connections as set out under ‘Achieving the Targets.’ The government is willing to support industry in achieving their targets by considering how legislation may be improved to enable water companies to better tackle excess rainwater in our sewage systems.
31. The government sets out what it will do. It is focussed entirely on how water companies will be directed under the Environment Act 2021. For ease of reference this are listed below:
  - a new duty directly on water companies to secure a progressive reduction in the adverse impact of discharges from storm overflows.
  - a new duty on government to produce a statutory plan to reduce discharges from storm overflows and their adverse impact, and report to Parliament on progress.
  - a requirement for government to produce a report setting out the actions that would be needed to eliminate discharges from storm overflows in England, and the costs and benefits of those actions. Both publications are required by 1 September 2022.
  - a new duty directly on water companies and the Environment Agency to publish data on storm overflow operation on an annual basis.
  - a new duty directly on water companies to publish near real time information on the operation of storm overflows.
  - a new duty directly on water companies to monitor the water quality upstream and downstream of storm overflows and sewage disposal works.



- a new duty directly on water companies to produce comprehensive statutory Drainage and Sewerage Management Plans (also known as Drainage and Wastewater Management Plans) setting out how they will manage and develop their drainage and sewer system over a minimum 25-year planning horizon, including how storm overflows will be addressed through these plans.
  - a power of direction for the government to direct water companies in relation to the actions in these Drainage and Sewerage Management Plans. Water companies will have a key role in reducing discharges from storm overflows, but the government, regulators and the public can also take action to support and accelerate progress towards eliminating harm from storm overflows.
32. The Document says that the government is currently reviewing the case for implementation of Schedule 3 to the Flood and Water Management Act 2010 and will report back later this year. If implemented this schedule introduces: (a) standards for new sustainable drainage systems (SUDS); (b) an ‘approving body’; and (c) removes the automatic right to connect to the public sewer system.
33. There are two aspects in which new build can add to the problem. First, by adding sewage to the dry weather flows. Second, by contributing surface water. The Planning Framework deals with these issues but the Company asks if, in spite of the commitment to reform the Planning Framework, this will be enough to deal with the change to the approaches of managing sewers.
34. The Document is limited in stating the other actions incumbent upon government which would enable the Reduction Plan to be delivered as effectively as possible. There is a need to change the Planning Framework on connections to sewers. At present there is a right to connect to public sewers subject to the connection meeting defined technical standards and there is a connection or infrastructure charge to cover the impact on infrastructure. The Company supports the proposal to remove this right, in the forthcoming review.
35. The provision of much needed housing is often overwhelming sewers, but the water companies and regulators have no powers to object to development but do have statutory obligations as a consequence of planning decisions. The Company submits that a very useful change would be to make them at least statutory consultees in planning processes. There also needs to be greater clarity in the relationship between individual connections providing a very small increment of financial contribution and the major provision of additional assets as individual connections increase. There is a difference between the connection of very large development and the constant addition of individual properties. The commitment to remove the right to connect under the Schedule 3 of the Flood and Water Management Act is welcome and we assume that this will embrace the right to connect just foul sewage. The Company foresees that this will be an impediment to development and will thus cause a clash with regular planning permission processes. The Company urges therefore that the government needs to refine the Planning Framework to complement this change.
36. The other aspect of planning for new build is the commitment to SUDS. An initial reaction is that all new build should have SUDS, but the Company cautions that there are some situations in which this may not be possible, for example, in single property infill in tight urban situations, which of course is going to exacerbate the challenge of the task of

water companies. So, there is a possibility that some new build might be connected to the new surface water sewerage systems. The Company submits that planning and building consents must have a legal requirement for SUDS, unless there is an exemption granted under prescribed conditions. It may well be that this could be achieved as a Planning Direction with a Statutory Code of Practice. The Building Regulations might also need attention.

37. Discussion of the practical delivery of the Plan may be too detailed for the Consultation Document, but there are issues which must be addressed by government, sooner rather than later. In spite of the public demand for action, when it comes to granting planning permission for new assets, like storage tanks, there is less tolerance, as the objections to the Thames Tideway Tunnel demonstrate. This aspect of delivery of the Plan might need to be addressed by planning guidance under the Planning Framework. There is limited patience over the disruption of roads and access. The government needs to ensure that the New Roads and Street Works Act 1991 is fit for purpose (and any Code of Practice ) and that compensation arrangements under Section 180 and Schedule 12 of the Water Industry Act 1991, as amended, and section 177 and Schedule 21 of the Water Resources Act 1991, are fit for purpose.
38. The Consultation Document links the problems of storm sewage in a fairly specific way to the demands for ‘wild swimming’, *We are increasingly seeing applications from community groups for bathing water status rather than from local authorities, as has been the norm. To make it easier for water community groups to understand the criteria for bathing water status and ensure only necessary information is requested, this year the government will revise its existing guidance on how to make an application for a new bathing water designation.* This will create a tranche of *ad hoc* applications which will make discharge planning more difficult if it is extended widely in inland waters. The Company hopes that the promise to review guidance on bathing water designation is part of a much broader co-ordinated process, which could include much greater public participation

### **Public participation**

39. The underlying thesis underpinning this submission is that the nation has reached a point where it must be recognised that everyone has a role to play in delivering environmental aspirations. For example, we must all avoid flushing used care products down toilets as a contribution to avoiding sewer blockages and consequent overflows. In respect of water management, society at large must accept the principle that water companies are facilitators of services insofar that their principal foci are as transporters and producers. It must be recognised that we are approaching the limits of what they and the regulators can achieve alone in terms of behavioural change influencing customer demands for products (consumption) and influencing raw materials, e.g. sewage composition. This insight is not emphasised enough in the Consultation document. The Consultation document does make reference is made to ‘actions that we can all take to reduce the amount of rainwater entering our sewers and keep them flowing freely’. But there is much more to be done than this. The Company has already advocated this kind of approach in its submission for a holistic strategy for dealing with used care products. The Company would like to see the government take national leadership in this concept of Citizen Delivery.

40. Citizen science is defined as public participation in scientific research, participatory monitoring, and participatory action research, whose outcomes are often advancements in scientific research by improving the scientific community's capacity, as well as increasing the public's understanding of science. It has been used increasingly, for example, in river management. Ultimately, this is leading to a bottom-up social movement that is clamouring for a change in the way we manage our water environment. The Company supports the important role of public participation.
41. To some extent this misses a major point that, as this submission demonstrates and as is highlighted in the outcomes of COP26, the time has come to embrace the reality that environmental aspirations will only be reached by a broader coalition of delivery involving all of us be that individual or corporate. For example, in the Consultation document, reference is made to 'actions that we can all take to reduce the amount of rainwater entering our sewers and keep them flowing freely'. The Company has already advocated this kind of approach in its submission for a holistic strategy for dealing with used care products. The Company would like to see the government take national leadership in this concept. The Company suggests that the time has come to create a nexus between Citizen Science and Citizen Delivery, and it will be considering how this could be best achieved

### **How much is it going to cost?**

42. The Consultation Document uses the evidence produced by the Stantec report. It says that based on the costs modelled in the Storm Overflow Evidence Project, to reduce storm overflow discharges resulting from surface water entering the sewer system, ecology and rainfall limit targets have an average combined capital cost of £51.5bn (range: £40bn to £63bn). The public health target and the screening requirements have been estimated to add a further capital cost of £2.5bn - this estimation has been based on the costs of previous storm overflow upgrades (i.e. the Green Recovery programme for the case of public health, and previous Asset Management Plan investments adjusted for inflation for screens). The projected total investment of £54bn capital costs (plus a further 1% annual operation cost) carried out as a phased long-term programme would be equivalent to average annual water bills in England of £65 per bill payer over the period 2025-2089. There would be no immediate bill impacts. The modelled bill increases would start in 2025, and would initially be lower, slowly rising to an increase of £20 per year (less than £2 per household per month) between 2025 and 2030.
43. The Company has no immediate bases to challenge, or confirm, these costs but it does not appear as if the costs anticipated any extra demands for a much extended inland bathing water programme and the impact of those would also embrace additional costs for additional treatment at Works.
44. The Stantec report provides a great deal of information on costs and some sensitivity analysis, for example in determining the impact of different mixes of projected solutions. But it does not provide any sensitivity analysis of the impact of an extended inland bathing water programme. The analysis would be able to identify the additional costs to the many for the benefits of the few. It would also be appropriate if the government could follow the rules on testing the cost effectiveness of new regulations and provide an analysis under guidance in the Treasury Green Book (the latest version is dated 30 March 2022) on Appraisal and Evaluation.

45. The Company does observe that the current pressures on the cost of living do throw a light on national priorities and the average increase in water bills of £7 in 2020-23 was headlined as a contributor to poverty. It must be remembered that the cost of the Reduction Plan is just one element amongst others incurring cost (for example in meeting the costs of Environmental Targets).

### **THE NEED FOR AN OVERARCHING STRATEGY**

46. In this Statement the Company has argued for better correlation on steps taken by government on water services and the uses and qualities of rivers. There is a need for a refined local approach rather than rather blunt targets. There is a need for a Water Quality Planning Framework. The Consultation Document does not make it plain how the duties, which were added in the Environment Act are to be satisfied in the round. The Company has also submitted that there are now so many pieces of policy that there needs to be not just an explanation of how it all fits together but to make sure that they do fit together. How do these fit into River Basin and Catchment Plans under the Water Environment Regulations 2017 (transposed the former commitments to the EU Water Framework Directive)?
47. A review of how England moves forward on river water quality could address the issue of whether Good Ecological and Chemical Status is the right way forward. Water quality should be managed to ensure that local uses are protected including the ‘rights of nature’, but to provide an overall national picture there needs to be a classification system. The question has to be posed, by focussing on the river classification system, is the system fit for purpose for planning. The Chair of the Environment Agency has posed this. Perhaps there is scope for a further consultation on this basis.
48. The current drive for ‘wild swimming’ and the designation of inland bathing waters has ‘muddied the waters’ still further, because achieving good ecological or chemical status does not necessarily make the water fit to swim in. The relationship between storm overflow and sewage discharges, and water being fit to swim in, is strengthened by the Consultation Document. The reference to make it easier for community groups to apply for bathing water status is made in the context of coastal bathing waters, but will embolden pressures for inland waters. Surfers Against Sewage are advocating that all rivers should be designated for swimming. The media are promoting wild swimming. For example, the Times on 2 April 2022 ran an article ‘Bathing alerts to dish dirt on our rivers’. In it, the article encouraged readers to apply for inland bathing water status and pointed out how easy it can be and provides a map of the numerous sites, where people have asked for alerts when sewage is released. There is some ambiguity because such designations require much more than monitoring and notification, it puts additional demands on quality management.
49. In recent time the reluctance to designate inland bathing water sites, held not just by the water sector, but by government as well, has evolved. The Company’s own submission on Wolvercote Mill Stream recognised this, but pointed out that the concerns expressed in the past, remained as important criteria to be satisfied. In The Times article, the Sustainability Director of Thames Water said that bathing water status will not guarantee that the water is clean and safe - there are always going to be hazards in an open environment, whether it is bacteria or viruses or boats or strong currents or submerged vegetation.

48 Recent publicity on locations for wild swimming (The Times 9 April 2022) focussed significantly on enclosed controlled waters, such as lakes, and these present more manageable challenges than river waters. The Company submits that this should be made clearer in any strategy for bathing waters.

49 The Company submits that by focussing on the issues of bathing water within a consultation on storm overflows, this misses the essential point of all the issues involved. It creates an expectation which may not be delivered in practice. Storm overflows are a major, but not sole factor in healthy bathing waters. Bathing water designations should be considered in a more holistic approach and, in themselves, form part of a national river strategy. The Company advocates an approach within which there are agreed sets of quality criteria for recognisable uses (including the demands of nature), there are public consultations on uses within defined stretches of rivers once it is agreed what those local uses are, then the relevant criteria are combined into a quality specification for the stretch. These are then used to determine discharge consents (including the separated surface waters) and river flow regimes, using models such as SIMCAT. This would be a much better approach than the rather random one evolving for inland bathing waters, but would still embed the principle sought by the campaign groups. This would be a good step in evolving the creation of Catchment Plans under the future Regulations of the Environment Act.

10 May 2022

Further reading:

This Position Statement covers a wide range of subjects for which there is a very substantial bibliography on the internet and in the Consultation Document itself. It does not seek to provide what would be a very comprehensive list of references, but does include a few, but not exclusive, which support the specific points being made.

The Company has already made submissions to Defra on the call for evidence on commonly littered single use plastics (<https://www.waterconservators.org/wp-content/uploads/wolvercote-mill-stream-defra-consultation.pdf>) and on the proposal to designate an inland bathing water at Oxford (<https://www.waterconservators.org/wp-content/uploads/A-HOLISTIC-APPROACH-TO-SOLVING-THE-PROBLEMS-OF-SEWAGE-BORNE-LITTER.pdf>.) This Statement should also be accepted as a companion to its submission in response to the consultation on Defra proposals for Environmental Targets.

River quality planning:

- 1 [20160217 Tony Warn - Water Quality Planning.pdf](#) :
- 2 Mark Everard WATER QUALITY OBJECTIVES AS A MANAGEMENT TOOL FOR SUSTAINABILITY FBA [228601502.pdf](#)